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February 8, 1993

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RE: In the Matter of Petition to Authorize Co-Primary  
Sharing of the 450 MHz Air-Ground Radiotelephone  
Service with BETRS, Docket RM-8159

Gentlemen:

Enclosed please find an original and six copies of the  
National Business Aircraft Association, Inc.'s Statement in  
Opposition to RM-8519.

The top copy is our date stamped copy. Please stamp and  
give it to the messenger. He will return it to us. Thank you.

Sincerely,



J.E. Murdock III  
Counsel to the  
National Business Aircraft  
Association, Inc.

Enclosures

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0 of 5

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter of  
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Co-Primary Sharing of the  
450 MHz Air-Ground  
Radiotelephone Service  
with BETRS

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RM-8159

STATEMENT IN  
OPPOSITION TO THE  
PETITION OF RULEMAKING

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February 8, 1993

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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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Petition to Authorize	*	
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450 MHz Air-Ground	*	RM-8159
Radiotelephone Service	*	
with BETRS	*	

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STATEMENT IN  
OPPOSITION TO THE  
PETITION OF RULEMAKING

The National Business Aircraft Association, Inc. (NBAA) is an organization which represents entities which utilize airplanes and helicopters to increase their company's efficiency. NBAA has 3,200 members<sup>1/</sup> which own or operate in excess of 5,000 aircraft.

On November 9, 1992 a petition<sup>2/</sup> was filed requesting that the Federal Communications Commission (FCC) initiate a rulemaking proceeding to amend the previous determination by the Commission that Air-Ground Radio Telephone Service (ATG) should be allocated frequency pairs or channels for such communications, 47 C.F.R.

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<sup>1/</sup> These members constitute over sixty percent of the Fortune 500 industrials.

<sup>2/</sup> The petition was jointly filed by the National Rural Telecom Association, National Telephone Cooperative Association, Organization for Protection and Advancement of Small Telephone Companies, Rural Electrification Administration and U.S. Telephone Association, hereinafter "Petitioners."

§ 22.521 (1991). The petitioners urge that Basic Exchange Telecommunications Radio Service (BETRS), which already has assigned to it substantial frequencies (47 C.F.R. § 22,601 (1991)), should have its existing allocation expanded by assigning on a co-primary<sup>3/</sup> basis channels previously allocated to ATG service. NBAA, pursuant to 47 C.F.R. § 1.405, files a statement in opposition to the BETRS petition; the ATG service needs all frequencies to which it is presently allocated, if not more.

I  
ATG SERVICE AND USERS ARE  
EXPANDING: CO-PRIMARY STATUS  
WOULD HARM THIS TREND

NBAA members and other operators of private aircraft presently have installed on airplanes and helicopters approximately 13,000 radio telephone units. These radio telephones are linked to approximately 83 domestic ground stations and 20 in Canada.

The manufacturers of these types of equipment, relying on this network of users and stations, have developed new technologies: a non-operator system allowing direct dial; a scrambler which ensures discrete calls; etc. Contrary to the assertions of the petitioners, the future prospects of ATG are positive, in fact deliveries of new radio-telephone are continuing at more than

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<sup>3/</sup> It is our understanding that the term "co-primary" has had a number of interpretations in FCC practice over time. On occasions this has meant that the first person using one of these frequencies has the permanent rights thereto; another approach allowed parties with competing interests to resolve their own differences and failing that they could appeal to the FCC. It is important to NBAA members that the FCC identify what specifically is meant by the term "co-primary" as used in this proceeding.

several hundred per year. As the technology becomes more sophisticated, greater growth can be expected. We forecast the use of these to be robust, not moribund as the petitioners would suggest. The only major delimiter to future growth of ATG service is the existing level of interference on the ATG frequencies. Arguably, ATG users and manufacturers should be petitioning the FCC for an increased allocation.

II  
ATG USERS OF THE 800 MHZ AND 450 MHZ  
BANDS ARE QUITE DISTINCT  
AND SHOULD NOT BE INTERMINGLED

The petition for rulemaking does not distinguish between the relatively simple radio telephones which the NBAA members use (the 450 MHz band per 47 C.F.R. § 22.521) and the very sophisticated system which Claircom, GTE Airfone and In-Flight Phone offer on scheduled airliners (800 MHz band per 47 C.F.R. § 22.1100). The equipment which makes the airline "air phone" service economically viable is not applicable to the services and aircraft which NBAA members generally use.

The services provided by Claircom, GTE Airfone and In-Flight Phone offer scheduled airline passengers service from seats equipped with individual hand sets. As many as 90 passengers can place calls that are routed through one or more large, sophisticated transceivers on a B-727, A-300, DC-10, B-747 or the like. The weight of the transceivers utilized on large commercial aircraft (see 14 C.F.R. Part 121) would be prohibitively heavy in the typically smaller aircraft which NBAA members use (see 14 C.F.R. Part 91).

Furthermore, the economies of scale of the "air phone" commercial service permit a much more sophisticated, more powerful transceiver than the usage to be expected from a business aircraft operation where there are fewer passengers (average load: 3.5 people). The 1990 FCC decision as to the 800 MHz band allocation has provided none of the benefits for business aviation users described by the petitioners. While 800 MHz equipment may be developed for business aviation users, the existing 13,000+ users of the 450 MHz equipment cannot utilize the frequencies allocated by the FCC in 1990.

There are two separate segments of ATG users as defined by the availability, cost, weight and use patterns. The 800 MHz equipment is well suited for commercial airlines. NBAA members are better served by the use of the 450 MHz transceivers. The 800 MHz band provided by the FCC additional allocation benefitted only the airline segment. Such a decision did not benefit the users ground station operating companies, nor manufacturers of 450 MHz equipment.

In considering the allocation to "air phone" providers/users, the FCC must have acknowledged that the 450 MHz band had insufficient spectrum to allow this new service; for the commercial airline service was assigned frequencies within the 800 MHz band. This distinction is implicitly acknowledged in the regulatory limitation (47 C.F.R. § 22.500 (b)) that the airborne equipment "may be licensed to the individual user." NBAA members are such individual users to whom the 450 MHz band has been assigned. Further use by BETRS of the 450 MHz band will deteriorate the existing ATG service, a conclusion which must be drawn from the

FCC 1990 "air phone" decision. The BETRS petition has provided neither adequate data nor policy bases for a reversal of the original ATG allocation or of the FCC's recent review of the same issue.

### III ATG SERVICE IS NOT PRIMARILY URBAN

The petitioners make a third assertion which needs to be addressed. It is argued that BETRS and ATG are not likely to incur much interference because BETRS is primarily a rural service and ATG stations "are located near airports around urban areas" (Petition for Rulemaking, p. 13). This statement is based on a number of erroneous assumptions. First, all airports are not located "around urban areas."

The national air transportation system is intended to serve all locations; federal policy has encouraged and continues to give priority consideration to the construction of airports in remote areas. Airports located in Osage Beach, Missouri; Carrington, North Dakota; Daingerfield, Texas; Leoti, Kansas and Creede, Colorado (and this is only a very small percentage of a long list of airports not found in major cities) amply demonstrate that actual and potential areas around which ATG service will be used are hardly urban in nature.

Second, without regard to the points to/from which the airplanes fly, the most important usage of ATG services occurs when they are in transit. Thus, many of the ATG Ground Stations are

located without regard to airports<sup>4/</sup> and are strategically sited outside urban areas to produce the most geographically comprehensive, reliable airborne radio-telephone coverage. Because ATG service needs to be nationwide (aircraft can fly everywhere), use of the previously assigned ATG frequencies by BETRS is not as trivial as the petitioners suggest; such co-primary status could be a major attack on ATG service providers' ability to provide national coverage to aircraft flying in urban, suburban, exurban, rural, wilderness, etc. areas.

Petitioners' urban characterization of the ATG is technically difficult to support. Stations located in urban areas are fully capable of servicing aircraft well beyond the 640 mile co-channel protection radius advocated by the petitioners. An aircraft, particularly business aircraft flying at an altitude of 41,000 to 50,000 feet, will have its ATG services impaired by BETRS stations operating within overlapping service volume on a co-primary basis.

IV  
ATG SERVICE SHOULD NOT INCUR ADDITIONAL INTERFERENCE:  
EXISTING SERVICE AND EQUIPMENT HAVE  
BEEN DEVELOPED IN RELIANCE UPON THE ATG  
ALLOCATION BY THE FCC

The future of ATG is quite bright. The primary road block to increased utilization is today's level of congestion on the 12

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<sup>4/</sup> The attached maps (Exhibits A and B) show the coverage provided by ground stations to aircraft flying at 40,000 feet MSL. Through this network the entire continental United States and much of industrialized Canada receive ATG service.



channels. The solution proposed by petitioners, co-primary utilization, will further exacerbate that problem. The FCC previously allocated these frequencies to ATG service. Acting in reliance upon that action, manufacturers have expended considerable funds in support of the research and development of ATG equipment; the BETRS solution would jeopardize that capital investment especially the future returns thereon. From NBAA's perspective our members, also relying on the FCC's allocation of these frequencies to ATG users on an exclusive basis, have purchased over 13,000 transceivers and are expected to purchase more ATG equipment. This previous FCC action has created the reasonable expectation of clear transmissions from member aircraft to their businesses; this communication connection is critical to the commerce in which each of these members is engaged.

The BETRS co-primary status will derogate the service upon which these investments were based and will suboptimize the future growth of this service. Such a result does not promote the efficient and economical use of the airwaves. Future technologies, as they develop, will have to be wary, even after an allocation by the FCC, of some other user's potential interest in the same frequencies. The Commission's previous decision was correct; petitioners have not established sufficient evidence to show that co-primary status is a viable alternative nor a record upon which to reverse a prior determination.

V  
SUMMARY

The future of ATG service is quite positive. NBAA members expect to increasingly utilize this form of communication and to purchase more, improved equipment. The FCC decision to allocate frequencies for radio telephone service (800 MHz) on scheduled flights should not be the basis for reducing the frequencies available for business aviation (450 MHz). ATG service, to be effective, must be available on a nationwide basis. Diminishing the quality of ATG service in rural areas is not an acceptable alternative; for these aircraft fly equally over rural and urban areas. If the FCC reverses its previous allocation to ATG services, such an action will not only harm the manufacturers and users of this equipment (450 MHz) but would deter future developers of similar technologies.

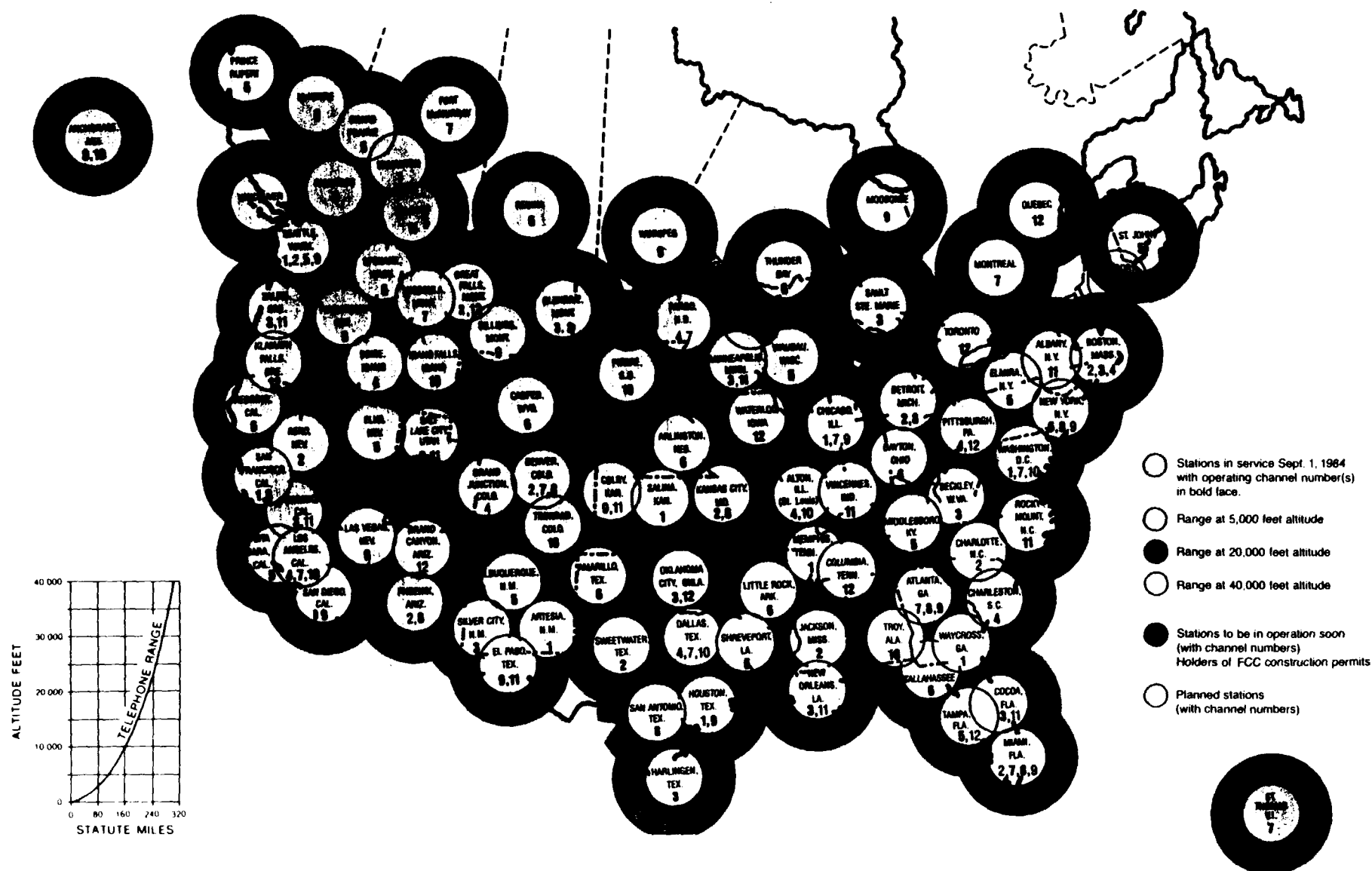
Respectfully submitted,

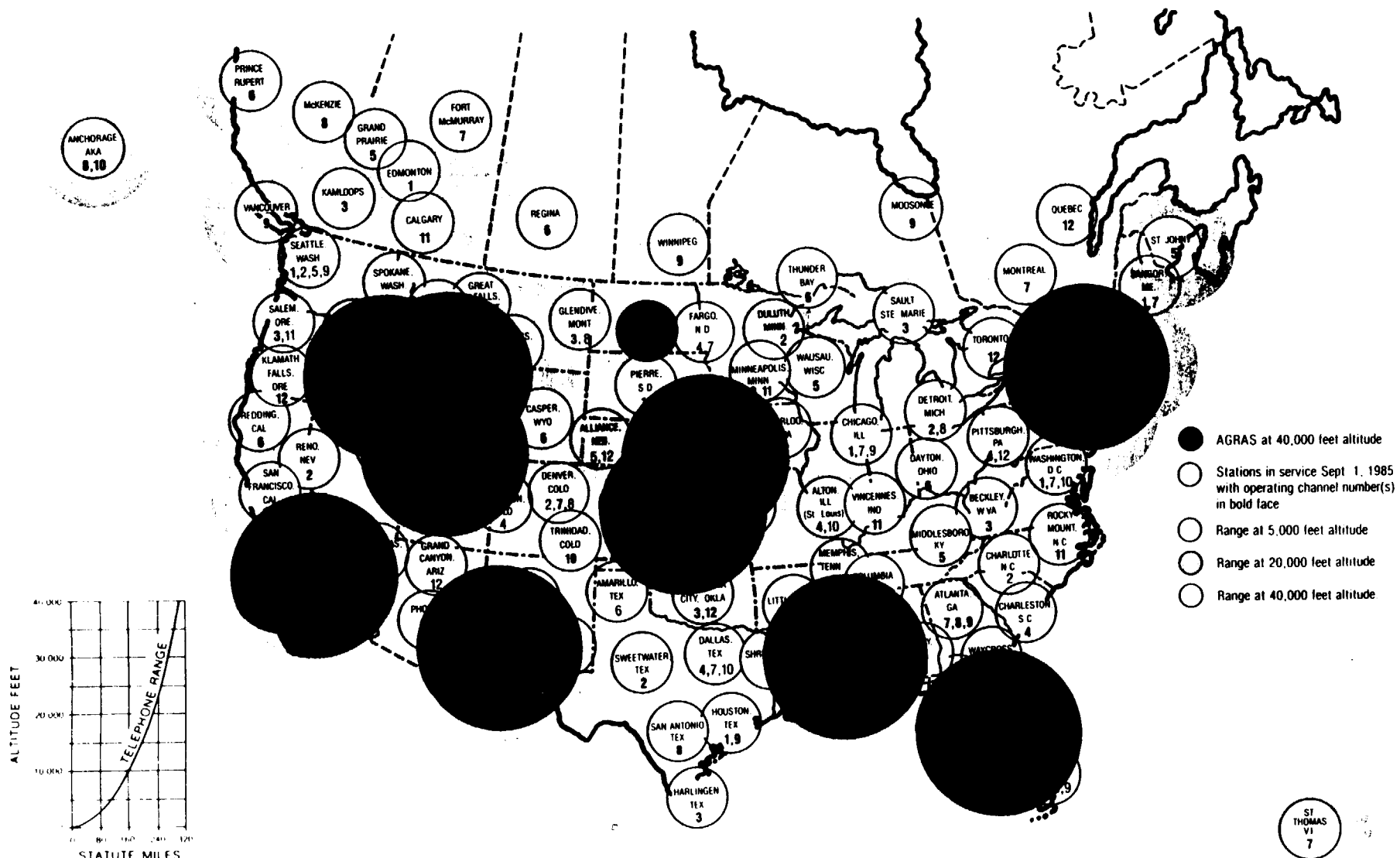


J.E. Murdock III  
Counsel to the  
National Business Aircraft  
Association, Inc.

DATED: February 8, 1993

## EXHIBIT A





CERTIFICATE OF SERVICE

I hereby certify that on the below date copies of this Statement in Opposition were placed in the U.S. mail, postage prepaid and properly addressed to the petitioners:

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DATED: February 8, 1993